

Energy statistics, September 2020

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As the impact of COVID-19 persisted, September marked the continuation of a downward trend in energy production in Canada while demand for energy products remained low. Production of crude oil and equivalent, refined petroleum products, electricity and coal remained below September 2019 levels, while natural gas production continued to contract. In contrast, electricity generation from renewable energy sources (including hydro, wind and solar) rose.

For more information on energy in Canada, including production, consumption, international trade and much more, please visit the [Canadian Centre for Energy Information](#) website and follow #energynews on social media.

Crude oil production and exports continue to decline

Production of crude oil and equivalent products fell 7.6% to 20.2 million cubic metres (127.2 million barrels) in September—the sixth consecutive monthly year-over-year decrease. Notably, the average monthly production since April was 10.9% (2.5 million cubic metres) lower compared with the same period in 2019. The decline was attributable to lower prices and falling demand for crude oil due to reduced economic activity during the pandemic.

Crude bitumen production, down 15.6% year over year, was the main contributor to the overall decline, primarily due to mined production, which has fallen for six consecutive months. Heavy crude oil (-7.8%) was also down year over year, mostly because of reduced production in Alberta and Saskatchewan.

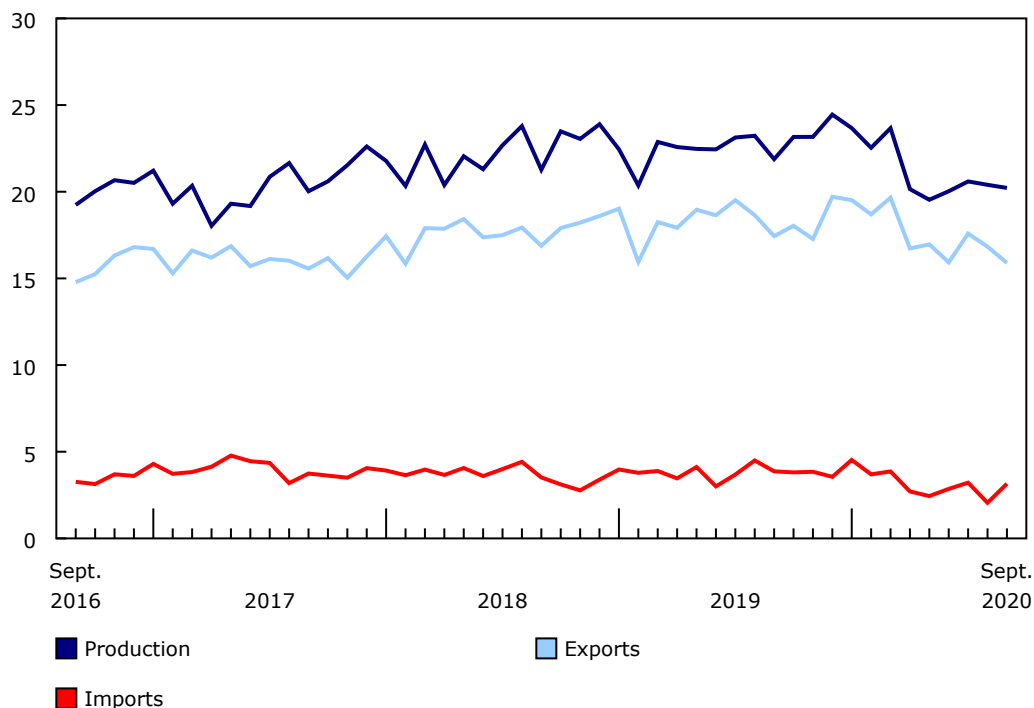
Partially offsetting the overall decrease, synthetic crude oil production was up 2.2% in September. This followed three consecutive monthly declines caused by maintenance work at some facilities in northern Alberta. Light and medium crude oil (+0.6%) edged up due to higher production in Newfoundland and Labrador.

Global demand and consumption of crude oil remained moderate in September. According to the US Energy Information Administration estimates, global consumption of petroleum was up 1.5% from August to September, but remained 6.3% below September 2019 levels. Meanwhile, the price of crude oil fell 7.0% from August to September, the first monthly decrease since April, as reported by the [Raw Materials Price Index](#).



Chart 1
Production, exports and imports of crude oil and equivalent products

millions of cubic metres



Source(s): Table 25-10-0063-01.

Exports of crude oil and equivalent products fell 8.9% to 15.9 million cubic metres in September—the lowest level since February 2018. The decline was partially due to lower volumes shipped by pipeline, down 6.1% year over year to 14.2 million cubic metres in September.

Exports to the United States by other means (rail, truck and marine) were down 48.1% as demand for additional transport capacity to supplement the pipelines remained soft. Overall, demand for Canadian crude oil remained low in the United States. This was due to the ongoing restrictions caused by the pandemic and recent hurricanes, which led to the temporary shutdown of some refineries on the US gulf coast in September.

Meanwhile, exports of crude oil and equivalent products to other countries were up year over year, with the majority of exported volumes originating from Newfoundland and Labrador.

Following a 54.3% decline in August, total imports of crude oil and equivalent products fell 18.5% year over year to 3.2 million cubic metres in September. Although imports by Canadian refineries partially recovered from record low levels reported in August, imports by refineries remained 16.8% below September 2019. According to the [Monthly Survey of Manufacturing](#), capacity utilization in the petroleum and coal products industry remained 4.8% below September 2019 levels.

Imports by entities other than refineries (-22.3%) were also down year over year in September due to lower demand for equivalent products (diluent) in Western Canada.

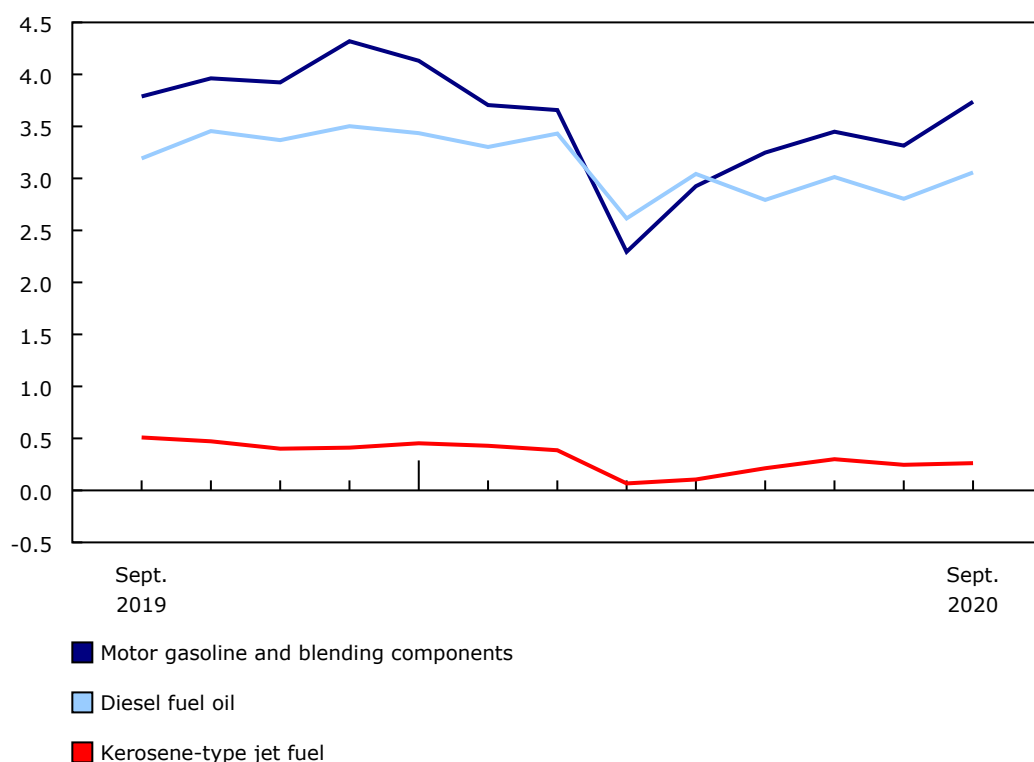
Production and consumption of refined petroleum products down year over year despite slow recovery

In September, the input of crude oil to Canadian refineries fell 17.0% year over year to 7.5 million cubic metres. This followed a 27.9% drop in August, which was partially attributable to scheduled maintenance at some refineries.

Net production of motor gasoline (including blending components and ethanol fuel) was down 1.3% year over year to 3.7 million cubic metres in September. Despite the decline, production of motor gasoline was at its highest monthly level since January 2020. Diesel fuel oil production decreased 4.2% and kerosene-type jet fuel production was down 48.5%.

Chart 2
Net production of motor gasoline, diesel fuel and kerosene-type jet fuel

millions of cubic metres



Source(s): Table 25-10-0076-01.

Following large declines in July (-11.3%) and August (-13.9%), domestic consumption of motor gasoline fell another 6.4% year over year in September. Domestic consumption of diesel fuel (-1.7%) was also down in September, while jet fuel fell 68.4% year over year, as activity in the airline industry continued to be heavily affected by travel restrictions.

Demand for transportation fuels remained low in September. As reported by the [Monthly Survey of Manufacturing](#), sales of petroleum and coal products (including refinery activity) fell 38.0% compared with the same month one year ago.

Prices for petroleum products decreased in September, primarily due to lower crude oil prices. According to the [Industrial Product Price Index](#), motor gasoline (-3.5%) and diesel fuel (-8.1%) prices decreased for the second consecutive month, while the price of jet fuel was down 5.0% from a month earlier.

Natural gas production and exports fall to new low

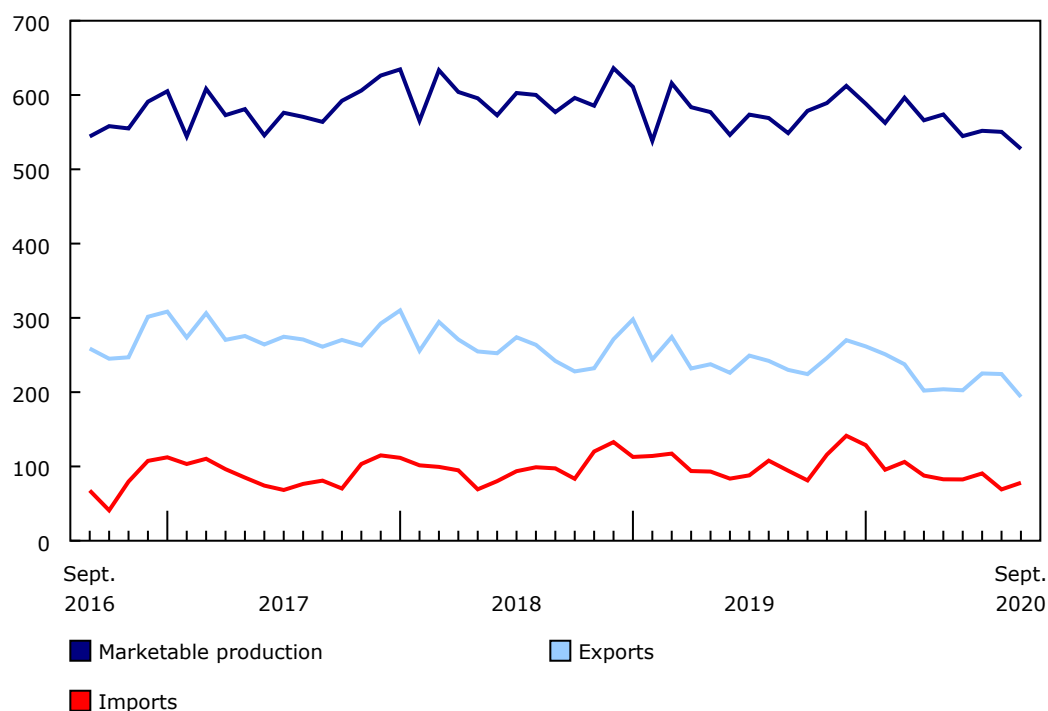
Production of Canadian marketable natural gas fell 3.9% to 527.5 million gigajoules in September—the lowest level since the current series began in January 2016. The decrease was attributable to lower production in Alberta (-4.0%) and British Columbia (-2.1%).

The demand for natural gas continued to trend downward in September. Following a 9.5% decrease in August, total deliveries of natural gas to Canadian consumers fell another 2.3% year over year in September to 275.6 million gigajoules. The decline was driven primarily by lower demand from the industrial sector in Alberta, which accounted for 59.1% of all natural gas delivered in Canada, down from 62.3% in September 2019.

Meanwhile, deliveries to the residential sector increased 14.4%, mostly on higher consumer demand for heating in Ontario, Saskatchewan and British Columbia. The residential sector in Ontario received half (50.9%) of all natural gas delivered to residential consumers in Canada.

Chart 3
Marketable production, exports and imports of natural gas

millions of gigajoules



Source(s): Table 25-10-0055-01.

Demand for natural gas continued to decline in the United States. Exports of natural gas by pipeline to the United States fell for the seventh consecutive month, down 15.8% year over year to 193.7 million gigajoules in September. This was the lowest production level since the current series began in January 2016. Imports of natural gas were down 17.3% to 78.0 million gigajoules, with the majority of natural gas imported to Ontario.

Electricity generation and consumption down year over year

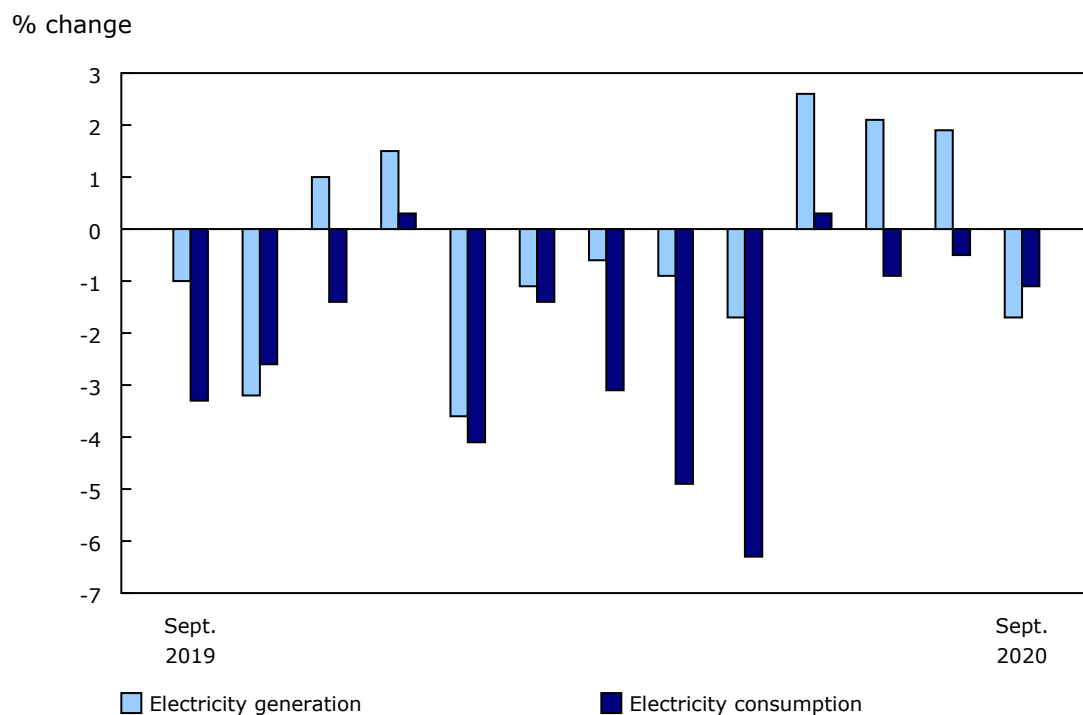
In September, electricity generation in Canada fell 1.7% to 45.9 million megawatt-hours (MWh)—the first monthly year-over-year decrease in four months. The decline was primarily driven by nuclear generation, down 18.3% year over year to 6.7 million MWh, as refurbishment and annual maintenance continued at some nuclear plants in Ontario and New Brunswick. Electricity generated from combustible fuels (-3.6% to 9.7 million MWh) was also down, due mostly to lower volumes generated in Alberta and Saskatchewan.

Partially offsetting the overall decrease, electricity generation from renewable energy sources (including hydro, wind, solar and other sources) was up 6.4% to 30.2 million MWh—accounting for two-thirds (65.9%) of Canada's electricity mix in September.

By generation type, hydro was the single largest contributor to Canada's electricity mix, producing 26.3 million MWh of electricity, up 1.4% year over year. Wind (+29.5%) and solar (+11.5%) also increased.

Electricity consumption decreased for the third consecutive month, down 1.1% year over year to 41.5 million MWh in September. The decrease was due to lower demand in Alberta (-6.0%) and Saskatchewan (-3.5%), as industrial and commercial activity remained weak during the month. The overall decrease in demand for electricity was partially offset by increased demand in Ontario (+1.3%).

Chart 4
Electricity generation and consumption, year-over-year change



Source(s): Tables 25-10-0015-01 and 25-10-0016-01

Electricity exports to the United States were down 17.4% year over year to 4.9 million MWh in September—the lowest level since February 2020. Quebec, Ontario, Manitoba and British Columbia were the main exporting provinces.

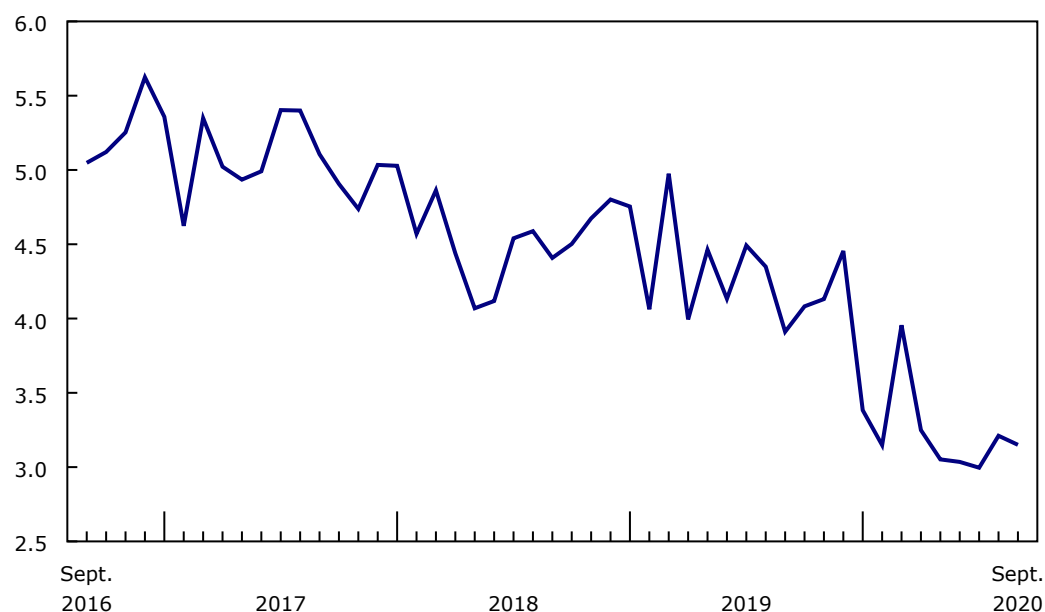
Imports of electricity from the United States, which tend to be volatile, were down 56.0% year over year to 0.6 million MWh. This was the lowest level since August 2017, mostly due to lower demand for imported electricity in British Columbia.

Coal production falls by almost one-fifth

Coal production fell 19.5% year over year to 3.2 million tonnes in September, due to ongoing reduced demand during the pandemic. Coke production decreased 12.3% to 171.2 thousand tonnes.

Chart 5 Coal production

millions of tonnes



Source(s): Table 25-10-0046-01.

Energy sector continues to decline in the third quarter

July to September 2020 marked the second consecutive quarter directly affected by the coronavirus pandemic. Despite the gradual uptick in economic activity, overall energy indicators remained weak compared with the same quarter a year earlier.

Production of crude oil and equivalent products fell 10.3% year over year to 61.2 million cubic metres in the third quarter. This was the lowest level of third quarter production since 2016. Oil sands extraction (-12.9%) was the main contributor to the overall decline in crude oil production. Weak demand and delayed maintenance work at some oil sands facilities in northern Alberta contributed to the decrease in the third quarter.

Exports of crude oil and equivalent products were down 9.5% compared with the same quarter in 2019, as demand for Canadian crude oil from the United States remained low. Meanwhile, imports of crude oil and equivalent products (-30.1%) also declined, mostly on lower volumes imported by Canadian refineries.

Despite a slow recovery in refinery activity, production of refined petroleum products remained low as lockdowns and travel restrictions continued during the third quarter. As a result, net production of motor gasoline (-11.0%), diesel fuel (-13.3%) and jet fuel (-58.4%) were all down year over year. Average capacity utilization in the petroleum and coal products industry fell 7.9% year over year to 76.7% in the third quarter. Consumption of motor gasoline (-10.6%), diesel fuel (-6.6%) and jet fuel (-68.3%) were also down.

Canadian marketable production of natural gas continued to decline, down 3.6% to 1.6 billion gigajoules in the third quarter. Total deliveries of natural gas to Canadian consumers (-5.5%) were affected by reduced economic activity and lower demand for natural gas from industrial (-6.0%) and commercial and institutional (-6.6%) consumers. In contrast, deliveries of natural gas to residential consumers were up 5.0%.

Electricity generation increased 0.8% to 149.7 million MWh in the third quarter compared with the same quarter in 2019, mainly due to electricity generation from renewable energy sources (+8.5%). Meanwhile, nuclear generation (-8.1%) and electricity from combustibles (-6.3%) were both down. Electricity consumption declined 0.8% on lower demand from industrial and commercial sectors. Exports of electricity to the United States increased 2.4% year over year.

Coal production was down 26.6% year over year to 9.4 million cubic metres in the third quarter. Mine closures and reduced economic activity during the pandemic continued to affect the demand for coal.

Note to readers

The consolidated energy statistics table (25-10-0079-01) presents monthly primary and secondary energy by fuel type in terajoules (crude oil, natural gas, electricity, coal, etc.) and supply and demand characteristics (production, exports, imports, etc.) for Canada. The table uses data from a variety of survey and administrative sources. Estimates are available starting with reference month January 2020.

The survey programs that support the energy statistics release include the following:

- crude oil and natural gas (survey number [2198](#), tables 25-10-0036-01, 25-10-0055-01 and 25-10-0063-01)—data from April to August 2020 have been revised.
- energy transportation and storage (survey number [5300](#), tables 25-10-0075-01 and 25-10-0077-01).
- natural gas transmission, storage and distribution (survey numbers [2149](#), [5210](#) and [5215](#), tables 25-10-0057-01, 25-10-0058-01 and 25-10-0059-01).
- refined petroleum products (survey number [2150](#), table 25-10-0076-01)—data from January to August 2020 have been revised. National supply estimates for renewable fuels, including fuel ethanol and biodiesel, are now available in table 25-10-0076-01 starting with reference month January 2020. More detailed renewable fuel data are also available upon request.
- electric power statistics (survey number [2151](#), tables 25-10-0015-01 and 25-10-0016-01)—data for August 2020 have been revised.
- coal and coke statistics (survey numbers [2147](#) and [2003](#), tables 25-10-0045-01 and 25-10-0046-01).

Data are subject to revisions. Energy statistics data are revised on an ongoing basis for each month of the current year to reflect new information provided by respondents and updates to administrative data. Historical revisions are also performed periodically.

Definitions, data sources and methods for each survey program remain available by accessing each survey's respective number.

The energy statistics program uses respondent and administrative data.

Data in this release are not seasonally adjusted.

Available tables: [25-10-0015-01](#), [25-10-0016-01](#), [25-10-0036-01](#), [25-10-0045-01](#), [25-10-0046-01](#), [25-10-0055-01](#), [25-10-0063-01](#), [25-10-0076-01](#) and [25-10-0079-01](#).

Definitions, data sources and methods: survey numbers [2003](#), [2147](#), [2149](#), [2150](#), [2151](#), [2198](#), [5210](#), [5215](#), [5294](#) and [5300](#).

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; STATCAN.infostats-infostats.STATCAN@canada.ca) or Media Relations (613-951-4636; STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca).